Mr. Frank Pohlmann
KUS Zollner Division
2425 South Coliseum Boulevard
Fort Wayne, Indiana 46803

Dear Mr. Pohlmann:

Re: Exempt Construction and Operation Status,
003-12117-00064

The application from KUS Zollner Division, received on March 31, 2000, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the construction and operation of the following equipment, to be located at 2425 South Coliseum Boulevard, Fort Wayne, Indiana, is classified as exempt from air pollution permit requirements:

(a) one (1) natural gas-fired melt furnace, with a maximum melt capacity of 2,500 pounds of aluminum per hour, and a maximum heat input capacity of 5.5 MMBtu per hour, identified as M4.

Note: This unit is exempt because potential emissions are all under the exemption levels specified in 326 IAC 2-1.1-3(d)(1) (Exemptions). This existing source has been issued a FESOP (F-003-5869-00064) on December 9, 1996. Two (2) of the existing melt furnaces, identified as M2 and M3, at this existing aluminum foundry will be removed when the new melt furnace is operational. Also, seven (7) existing reverberatory furnaces, identified as F3, F8, F9, F10, F14, F15, and F19, were removed from the source, and one (1) reverberatory furnace listed in the original FESOP, identified as F24, was never constructed and would not be in the future. Therefore, the addition of this furnace to this existing aluminum foundry does not increase the maximum potential aluminum throughput to this source.

The following conditions shall be applicable:

(1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuos opacity monitor in a six (6) hour period.

(2) Pursuant to 326 IAC 6-3-2 (Process Operations), the PM emissions from the new melt furnace, identified as M4, shall not exceed the allowable emission rate of 4.76 pounds per hour, based on a process weight rate of 2,500 pounds per hour. This emission limit was calculated using the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

This existing source has been issued a FESOP (F-003-5869-00064) on December 9, 1996. This source has submitted an application for a FESOP modification to incorporate the above mentioned equipment on December 21, 1999.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Management (OAM) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

TE/EVP

cc: File - Allen County
Allen County Health Department
Air Compliance - Jennifer Schick
Permit Tracking - Janet Mobley
Air Programs Section- Michelle Boner

Appendix A: Emission Calculations
Source Emissions Summary After Modification

Company Name: KUS Zollner Division
Address City IN Zip: 2425 South Coliseum Blvd., Fort Wayne, Indiana 46803
Exemption No.: 003-12117
Plt ID: 003-00064
Reviewer: Trish Earls/EVP
Date: March 31, 2000

Total Potential To Emit (tons/year)

	Emissions Generating Activity			
Pollutant	Melt Furnace #4	Pouring/Casting Emissions from Additional Throughput	Natural Gas Combustion*	**TOTAL**
PM	0.10	0.00	0.05	0.15
PM10	0.71	0.00	0.18	0.89
SO2	0.00	0.11	0.01	0.12
NOx	0.00	0.05	2.41	2.46
VOC	0.00	0.77	0.13	0.90
CO	0.00	0.00	2.02	2.02
total HAPs***	0.00	0.00	0.05	0.05
worst case single HAP***	0.00	0.00	0.04	0.04

Total emissions based on rated capacities at 8,760 hours/year.

Appendix A: Secondary Metal Production
Aluminum
Potential Emissions from New Equipment

Company Name: KUS Zollner Division
Address City IN Zip: 2425 South Coliseum Blvd., Fort Wayne, Indiana 46803
Exemption No.: 003-12117
Plt ID: 003-00064
Reviewer: Trish Earls/EVP
Date: March 31, 2000

SCC# 3-04-001-03
Smelting Furnace/Reverberatory
Melt Furnace #4

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR		
Aluminum		2500	2000	1.25		
	PM ** lbs/ton Produced	**PM10 ** lbs/ton Produced**	**SOx lbs/ton Produced**	**NOx lbs/ton Produced**	**VOC * lbs/ton Produced**	**CO lbs/tons Produced**
	0.019	0.13	0	0	0	--
Potential Emissions lbs/hr	0.02	0.16	0.0	0.0	0.0	--
Potential Emissions lbs/day	0.57	3.90	0.0	0.0	0.0	--
Potential Emissions tons/year	0.10	0.71	0.0	0.0	0.0	--

SCC# 3-04-001-04
Fluxing/Chlorine

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR		
Flux		0	2000	0		
	PM * lbs/ton Chlorine	**PM10 * lbs/ton Chlorine**	**SOx lbs/ton Chlorine**	**NOx lbs/ton Chlorine**	**VOC lbs/ton Chlorine**	**CO lbs/tons Chlorine**
	1000	532	0.00	0.00	0.00	--
Potential Emissions lbs/hr	0.0	0.0	0.0	0.0	0.0	--
Potential Emissions lbs/day	0.0	0.0	0.0	0.0	0.0	--
Potential Emissions tons/year	0.0	0.0	0.0	0.0	0.0	0

SCC# 3-04-001-14
Pouring/Casting

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR		
Aluminum		2500	2000	1.25		
	PM lbs/ton metal charged	**PM10 lbs/ton metal charged**	**SOx * lbs/ton metal charged**	**NOx * lbs/ton metal charged**	**VOC * lbs/ton metal charged**	**CO lbs/tons metal charged**
	--	--	0.02	0.01	0.14	--
Potential Emissions lbs/hr	0	0	0.03	0.01	0.18	--
Potential Emissions lbs/day	0	0	0.60	0.30	4.20	--
Potential Emissions tons/year	0	0	0.11	0.05	0.77	--

SCC# 3-04-001-02
Smelting Furnace, Crucible

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR		
Aluminum		0	2000	0		
	PM * lbs/ton metal produced	**PM10 * lbs/ton metal produced**	**SOx lbs/ton metal produced**	**NOx lbs/ton metal produced**	**VOC lbs/ton metal produced**	**CO lbs/tons metal produced**
	1.9	1.7	0.00	0.00	0.00	--
Potential Emissions lbs/hr	0	0	0	0.000	0.000	--
Potential Emissions lbs/day	0	0	0	0.000	0.000	--
Potential Emissions tons/year	0.00	0.00	0	0.000	0.000	--

* Note: Emission factor is from FIRE version 6.01.

alum.wk4 7/95

**Note: PM and PM-10 emission factors for melt furnace were based on approved stack test results from a stack test performed January 18, 2000 on furnace #14. PM-10 includes filterable and condensible particulate matter.

Appendix A: Emissions Calculations
Emissions Increase From Natural Gas Combustion
MM BTU/HR <100

Company Name: KUS Zollner Division
Address City IN Zip: 2425 South Coliseum Blvd., Fort Wayne, Indiana 46803
Exemption No.: 003-12117
Plt ID: 003-00064
Reviewer: Trish Earls/EVP
Date: March 29, 2000

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
5.5	48.2

Pollutant

	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.05	0.18	0.01	2.41	0.13	2.02

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	5.1E-05	2.9E-05	1.8E-03	4.3E-02	8.2E-05

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel	**Total**
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	1.2E-05	2.6E-05	3.4E-05	9.2E-06	5.1E-05	**0.05**

Methodology is the same as listed above.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.